INDEX OF AUTHORS AND PAPERS

PHYSICA B

Agarwal, B.K. and Harsh, O.K., Effect of geometry on the collective electron oscillations in the X-ray absorption spectra of various metal compounds 151B (1988) 509
Alefeld, B., see Baumann, J. 151B (1988) 130
Alexandrov, Yu.A., Chalupa, B., Eichhorn, F., Kulda, J., Lukáš, P., Machekhina, T.A., Michalec, R., Mikula, P., Sedláková, L.N. and Vrána, M., Neutron optical experiments at the IBR-2 pulsed reactor 151B (1988) 108
Andrews, T.B., A wave system theoy of quantum mechanics 151B (1988) 351
Arif, M., see Werner, S.A. 151B (1988) 22
Arif, M., Kaiser, H., Clothier, R., Werner, S.A., Berliner, R., Hamilton, W.A., Cimmino, A. and Klein, A.G., Fizeau effect for neutrons passing through matter at a nuclear resonance 151B (1988) 63
Arif, M., see Kaiser, H. 151B (1988) 68

Badurek, G., Rauch, H. and Summhammer, J., Polarized neutron interferometry: a survey 151B (1988) 82
Barut, A.O. and Božić, M., Two- and three-dimensional tunneling of neutral spin 1/2 particles through magnetic fields 151B (1988) 180
Basu, P.K., Sarkar, C.K. and Kundu, S., Cyclotron resonance linewidth in a two-dimensional electron gas due to phonon scattering 151B (1988) 494
Baumann, J., Kalus, J., Gähler, R., Mampe, W. and Alefeld, B., A neutron optical imaging system for the determination of an upper limit of the neutron charge 151B (1988) 130
Berliner, R., see Arif, M. 151B (1988) 63
Berliner, R., see Kaiser, H. 151B (1988) 68
Bernstein, H.J., see Horne, M.A. 151B (1988) 189
Bialynicki-Birula, I., Does measurement reverse the direction of intrinsic time? 151B (1988) 302
Bonse, U., Recent advances in X-ray and neutron interferometry 151B (1988) 7
Boom, R., see Niessen, A.K. 151B (1988) 401
Božić, M., see Barut, A.O. 151B (1988) 180
Buonomano, V., The non-ergodic interpretation of quantum mechanics and neutron interferometry 151B (1988) 349

Cau, H.-Q., see Chen, J.-W. 151B (1988) 235
Chalupa, B., see Alexandrov, Yu.A. 151B (1988) 108
Chalupa, B., see Michalec, R. 151B (1988) 113
Chen, J.-W., Fu, S.-F., Cau, H.-Q. and Wang, Z.-J., Electron interference and holography at SIOM: basic considerations and experimental results 151B (1988) 235
Cimmino, A., see Arif, M. 151B (1988) 63
Cimmino, A., see Kaiser, H. 151B (1988) 68

Clauser, J.F., Ultra-high sensitivity accelerometers and gyroscopes using neutral atom matter-wave interferometry 151B (1988) 262
Clothier, R., see Werner, S.A. 151B (1988) 22
Clothier, R., see Arif, M. 151B (1988) 63
Clothier, R., see Kaiser, H. 151B (1988) 68

Dasannacharya, B.A., see Rakhecha, V.C. 151B (1988) 57
De Boer, F.R., see Niessen, A.K. 151B (1988) 401
Dewdney, C., The quantum potential approach to neutron interferometry experiments 151B (1988) 160
Diedrich, F., Krause, J., Rempe, G., Scully, M.O. and Walther, H., Laser experiments with single atoms and the test of basic physics 151B (1988) 247
Dorda, G., Quantum effects in semiconductor components 151B (1988) 273
Drexel, W., see Steyerl, A. 151B (1988) 36
Dubbers, D., Measurement of the Berry phase with polarized neutrons 151B (1988) 93

Eder, G., Introduction 151B (1988) 373
Eichhorn, F., see Alexandrov, Yu.A. 151B (1988) 108
Eichhorn, F., Perfect crystal neutron optics 151B (1988) 140
Entralgo, E.E. and Kuryshkin, V.V., The Schrödinger equation as the main quantization principle 151B (1988) 306

Felber, J., Gähler, R. and Golub, R., Test of the time dependent Schrödinger equation with very slow neutrons 151B (1988) 135
Finkelstein, K.D., see Horne, M.A. 151B (1988) 189
Frings, P., Renker, B. and Vettier, C., Anti-ferromagnetic correlations in UPt_3 151B (1988) 499
Fu, S.-F., see Chen, J.-W. 151B (1988) 235

Gähler, R., see Baumann, J. 151B (1988) 130
Gähler, R., see Felber, J. 151B (1988) 135
Golub, R., see Felber, J. 151B (1988) 135
Gordon, A., Kink dynamics in hydrogen-bonded solids 151B (1988) 453
Gould, P.L., see Martin, P.J. 151B (1988) 255
Greenberger, D.M., A new non-local effect in quantum mechanics 151B (1988) 374
Grössing, G. and Zeilinger, A., Structures in quantum cellular automata 151B (1988) 366
Guigay, J.P., A convenient expression of the Green function in LL neutron interferometry 151B (1988) 176
Gutsmiedl, E., see Steyerl, A. 151B (1988) 36

Hamilton, W.A., see Arif, M. 151B (1988) 63
Harsh, O.K., see Agarwal, B.K. 151B (1988) 509
Hasselbach, F. and Nicklaus, M., An electron optical Sagnac experiment 151B (1988) 230
Hilgevoord, J., see Uffink, J. 151B (1988) 309
Horne, M.A., see Zeilinger, A. 151B (1988) 147
Horne, M.A., Finkelstein, K.D., Shull, C.G., Zeilinger, A. and Bernstein, H.J., Neutron spin–pendellösung resonance 151B (1988) 189

Ioffe, A.I., Diffraction-grating neutron interferometers 151B (1988) 50

Kaiser, H., see Werner, S.A. 151B (1988) 22
Kaiser, H., see Arif, M. 151B (1988) 63
Kaiser, H., Arif, M., Berliner, R., Clothier, R., Werner, S.A., Cimmino, A., Klein, A.G. and Opat, G.I., Neutron interferometry investigation of the Aharonov–Casher effect 151B (1988) 68
Kalus, J., see Baumann, J. 151B (1988) 130
Kamesberger, J. and Zeilinger, A., Numerical solution of a nonlinear Schrödinger equation for neutron optics experiments 151B (1988) 193
Klein, A.G., Schrödinger inviolate: neutron optical searches for violations of quantum mechanics 151B (1988) 44
Klein, A.G., see Arif, M. 151B (1988) 63
Klein, A.G., see Kaiser, H. 151B (1988) 68
Koh, Y. and Sasaki, T., Are two-beam Dirac interferences mass-independent? 151B (1988) 362
Kraus, K., Bell-type inequalities à la Schrödinger 151B (1988) 319
Krause, J., see Diedrich, F. 151B (1988) 247
Kulda, J., see Alexandrov, Yu.A. 151B (1988) 108
Kulda, J., see Michalec, R. 151B (1988) 113
Kulda, J., Vrána, M. and Mikula, P., Neutron diffraction by vibrating crystals 151B (1988) 122
Kundu, S., see Basu, P.K. 151B (1988) 494
Kuryshkin, V.V., see Entralgo, E.E. 151B (1988) 306

Lenstra, D. and Smokers, R.T.M., Voltage-dependent scaling of the quantum resistance in 1D disordered systems 151B (1988) 503
Lévy-Leblond, J.-M., Quantum physics and language 151B (1988) 314
Lévy-Leblond, J.-M., A quantum credo 151B (1988) 378
Liang, J.Q., Path integrals in multiply connected spaces and the Aharonov–Bohm interference 151B (1988) 239
Lichte, H., Electron holography of atomic structures – prospect and limitations 151B (1988) 214
Lukáš, P., see Alexandrov, Yu.A. 151B (1988) 108

Machekhina, T.A., see Alexandrov, Yu.A. 151B (1988) 108
Mackinnon, L., Observations and events 151B (1988) 355
Maier-Leibnitz, H., Early neutron optics in Munich and in Grenoble 151B (1988) 3
Malik, S.S., see Steyerl, A. 151B (1988) 36
Mampe, W., see Baumann, J. 151B (1988) 130
Martin, P.J., Gould, P.L., Oldaker, B.G., Miklich, A.H. and Pritchard, D.E., Diffraction of atoms from a standing light wave 151B (1988) 255
Massidda, V., Dipole–dipole interactions and the ferroelectric–modulated and modulated–paraelectric phase transitions of $NaNO_2$ 151B (1988) 483
Matteucci, G., Missiroli, G.F. and Pozzi, G., Electron interferometry and holography of electrostatic fields: fundamental and applicative aspects 151B (1988) 223
May, E.C., see Walker, E.H. 151B (1988) 339
Mezei, F., Zeeman energy, interference and neutron spin echo: a minimal theory 151B (1988) 74
Michalec, R., see Alexandrov, Yu.A. 151B (1988) 108
Michalec, R., Mikula, P., Vrána, M., Kulda, J., Chalupa, B. and Sedláková, L.N., Neutron diffraction by perfect crystals excited into mechanical resonance vibrations 151B (1988) 113

Miedema, A.R., see Niessen, A.K. 151B (1988) 401
Miklich, A.H., see Martin, P.J. 151B (1988) 255
Mikula, P., see Alexandrov, Yu.A. 151B (1988) 108
Mikula, P., see Michalec, R. 151B (1988) 113
Mikula, P., see Kulda, J. 151B (1988) 122
Misra, S.K., Evaluation of anisotropic non-coincident g^2, A^2, D, P and g_n^2 tensors from EPR and ENDOR data by the method of least-squares fitting. II. Use of second-order perturbed eigenvalues 151B (1988) 433
Missiroli, G.F., see Matteucci, G. 151B (1988) 223
Möllenstedt, G., Some remarks on the quantum mechanics of the electron 151B (1988) 201

Namiki, M., Neutron interference and quantum measurement problems 151B (1988) 281
Namiki, M., Some epistemological aspects of the quantum measurement problem 151B (1988) 381
Nicklaus, M., see Hasselbach, F. 151B (1988) 230
Niessen, A.K., Miedema, A.R., De Boer, F.R. and Boom, R., Enthalpies of formation of liquid and solid binary alloys based on 3d metals. IV. Alloys of cobalt 151B (1988) 401

Oldaker, B.G., see Martin, P.J. 151B (1988) 255
Onyszkiewicz, Z. and Wierzbicki, W., Theory of $FeCl_2$ metamagnet. I. Spin model with four-ion anisotropy 151B (1988) 462
Onyszkiewicz, Z. and Wierzbicki, W., Theory of $FeCl_2$ metamagnet. II. Spin model with three-ion anisotropy 151B (1988) 475
Opat, G.I., see Kaiser, H. 151B (1988) 68

Peshkin, M., Significance of Aharonov–Bohm effect measurements 151B (1988) 384
Petrascheck, D., On coherence in crystal optics 151B (1988) 171
Piantanida, T., see Walker, E.H. 151B (1988) 339
Pozzi, G., see Matteucci, G. 151B (1988) 223
Pritchard, D.E., see Martin, P.J. 151B (1988) 255

Rakhecha, V.C., Wagh, A.G. and Dasannacharya, B.A., Neutron interferometry in India 151B (1988) 57
Rauch, H., see Summhammer, J. 151B (1988) 103
Rauch, H., see Badurek, G. 151B (1988) 82
Rauch, H., see Tuppinger, D. 151B (1988) 96
Rempe, G., see Diedrich, F. 151B (1988) 247
Renker, B., see Frings, P. 151B (1988) 499
Rietdijk, C.W., A possible experimental verification of retroactivity 151B (1988) 358

Sarkar, C.K., see Basu, P.K. 151B (1988) 494
Sasaki, T., see Koh, Y. 151B (1988) 362
Sastry, M.D., Evidence for Cu^{3+} in $YBa_2Cu_3O_{7-\delta}$ from ESR measurements: a reassessment 151B (1988) 513
Scully, M.O., see Diedrich, F. 151B (1988) 247
Sears, V.F., Schrödinger equation for neutron optics 151B (1988) 156
Sedláková, L.N., see Alexandrov, Yu.A. 151B (1988) 108
Sedláková, L.N., see Michalec, R. 151B (1988) 113

Shull, C.G., see Horne, M.A. 151B (1988) 189
Silverman, M.P., Quantum interference effects on fermion clustering in a fermion interferometer 151B (1988) 291
Smokers, R.T.M., see Lenstra, D. 151B (1988) 503
Spottiswoode, S.J.P., see Walker, E.H. 151B (1988) 339
Steiner, F., Schrödinger's discovery of coherent states 151B (1988) 323
Steyerl, A., Drexel, W., Malik, S.S. and Gutsmiedl, E., Neutron resonators and interferometers for very low energy neutrons 151B (1988) 36
Stoler, D., see Yurke, B. 151B (1988) 298
Summhammer, J., Rauch, H. and Tuppinger, D., Stochastic and deterministic attenuation of one beam in the neutron interferometer 151B (1988) 103
Summhammer, J., see Badurek, G. 151B (1988) 82
Summhammer, J., see Tuppinger, D. 151B (1988) 96

Tonomura, A., New results on the Aharonov–Bohm effect with electron interferometry 151B (1988) 206
Tuppinger, D., see Summhammer, J. 151B (1988) 103
Tuppinger, D., Rauch, H. and Summhammer, J., Novel measuring methods in neutron interferometry 151B (1988) 96

Uffink, J. and Hilgevoord, J., Interference and distinguishability in quantum mechanics 151B (1988) 309

Vettier, C., see Frings, P. 151B (1988) 499
Vigier, J.P., New theoretical implications of neutron interferometric double resonance experiments 151B (1988) 386
Vrána, M., see Alexandrov, Yu.A. 151B (1988) 108
Vrána, M., see Michalec, R. 151B (1988) 113
Vrána, M., see Kulda, J. 151B (1988) 122

Wagh, A.G., see Rakhecha, V.C. 151B (1988) 57
Walker, E.H., Information measures in quantum mechanics 151B (1988) 332
Walker, E.H., May, E.C., Spottiswoode, S.J.P. and Piantanida, T., Testing Schrödinger's paradox with a Michelson interferometer 151B (1988) 339
Walther, H., see Diedrich, F. 151B (1988) 247
Wang, Z.-J., see Chen, J.-W. 151B (1988) 235
Werner, S.A., Kaiser, H., Arif, M. and Clothier, R., Neutron interference induced by gravity: new results and interpretations 151B (1988) 22
Werner, S.A., see Arif, M. 151B (1988) 63
Werner, S.A., see Kaiser, H. 151B (1988) 68
Wierzbicki, W., see Onyszkiewicz, Z. 151B (1988) 462
Wierzbicki, W., see Onyszkiewicz, Z. 151B (1988) 475

Yurke, B., Interferometry with correlated fermions 151B (1988) 286
Yurke, B. and Stoler, D., The dynamic generation of Schrödinger cats and their detection 151B (1988) 298

Zambrini, J.C., Probability in quantum mechanics according to E. Schrödinger 151B (1988) 327
Zeilinger, A. and Horne, M.A., Neutron focusing effects in perfect-crystal systems 151B (1988) 147
Zeilinger, A., see Horne, M.A. 151B (1988) 189
Zeilinger, A., see Kamesberger, J. 151B (1988) 193
Zeilinger, A., see Grössing, G. 151B (1988) 366

PHYSICA C

Klinkenberg, P.F.A., Spectral structure of trebly ionized thorium, Th IV 151C (1988) 552

Linhart, J.G. and Mezzetti, F., Axi-symmetrical bubbles 151C (1988) 539

Mezzetti, F., see Linhart, J.G. 151C (1988) 539

Nadkarni, G.S., see Shirodkar, V.S. 151C (1988) 527
Nadkarni, M.S., see Shirodkar, V.S. 151C (1988) 527
Nathuram, R., Subrahmanian, G. and Thontadarya, S.R., Mass attenuation coefficients on beta particles in 4π geometry 151C (1988) 547

Pakira, G., see Roy Chowdhury, A. 151C (1988) 518
Paul, S.N., see Roy Chowdhury, A. 151C (1988) 518

Radhakrishnan, S., see Shirodkar, V.S. 151C (1988) 527
Roy Chowdhury, A., Pakira, G. and Paul, S.N., On the effect of Landau damping in a relativistic electron acoustic plasma 151C (1988) 518

Shirodkar, V.S., Nadkarni, M.S., Nadkarni, G.S. and Radhakrishnan, S., Effects of localised transverse magnetic field on the characteristics of a glow discharge 151C (1988) 527
Subrahmanian, G., see Nathuram, R. 151C (1988) 547

Thontadarya, S.R., see Nathuram, R. 151C (1988) 547

ANALYTIC SUBJECT INDEX

PHYSICA B

Aberration correction
– Diffraction-grating neutron interferometers - Ioffe 151B (1988) 50
– Electron holography of atomic structures – prospect and limitations - Lichte 151B (1988) 214
Absorption effects
– Fizeau effect for neutrons passing through matter at a nuclear resonance - Arif et al. 151B (1988) 63
– Stochastic and deterministic attenuation of one beam in the neutron interferometer - Summhammer et al. 151B (1988) 103
– Neutron optical experiments at the IBR-2 pulsed reactor - Alexandrov et al. 151B (1988) 108
– Schrödinger equation for neutron optics - Sears 151B (1988) 156
Aharonov–Bohm effect
– Some remarks on the quantum mechanics of the electron - Möllenstedt 151B (1988) 201
– New results on the — with electron interferometry - Tonomura 151B (1988) 206
– Electron interferometry and holography of electrostatic fields: fundamental and applicative aspects - Matteucci et al. 151B (1988) 223
– Path integrals in multiply connected spaces and the Aharonov–Bohm interference - Liang 151B (1988) 239
– A new non-local effect in quantum mechanics - Greenberger 151B (1988) 374
– Significance of — measurements - Peshkin 151B (1988) 384
Aharonov–Casher effect
– Neutron interferometry investigation of the — - Kaiser et al. 151B (1988) 68
Alloys, binary
– Enthalpies of formation of liquid and solid binary alloys based on 3d metals. IV. Alloys of cobalt - Niessen et al. 151B (1988) 401
Antiferromagnetic correlations (see UPt_3) 151B (1988) 499
Atom interferometer
– Diffraction of atoms from a standing light wave - Martin et al. 151B (1988) 255
– Ultra-high sensitivity accelerometers and gyroscopes using neutral atom matter-wave interferometry - Clauser 151B (1988) 262

Bell inequalities
– Bell-type inequalities á la Schrödinger - Kraus 151B (1988) 319
Berry phase
– Measurement of the — with polarized neutrons - Dubbers 151B (1988) 93
– A new non-local effect in quantum mechanics - Greenberger 151B (1988) 374

Cellular automata
– Are two-beam Dirac interferences mass-independent? - Koh and Sasaki 151B (1988) 362
Chemical shifts (see *X-ray absorption spectra of metal compounds*) 151B (1988) 509

Christiansen filter
– Novel measuring methods in neutron interferometry - Tuppinger et al. 151B (1988) 96
Co alloys (see *Alloys, binary*) 151B (1988) 401
Coherence
– Recent advances in X-ray and neutron interferometry - Bonse 151B (1988) 7
– On — in crystal optics - Petrascheck 151B (1988) 171
– Some remarks on the quantum mechanics of the electron - Möllenstedt 151B (1988) 201
– An electron optical Sagnac experiment - Hasselbach and Nicklaus 151B (1988) 230
– Electron interference and holography at SIOM: basic considerations and experimental results - Chen et al. 151B (1988) 235
Coherent states
– The dynamic generation of Schrödinger cats and their detection - Yurke and Stoler 151B (1988) 298
– Schrödinger's discovery of — - Steiner 151B (1988) 323
Copper ions (see $YBa_2Cu_3O_{7-\delta}$) 151B (1988) 513
Correspondence principle
– The Schrödinger equation as the main quantization principle - Entralgo and Kuryshkin 151B (1988) 306
Cyclotron resonance linewidth (see *Phonon scattering*) 151B (1988) 494

Deformed crystals
– Neutron optical experiments at the IBR-2 pulsed reactor - Alexandrov et al. 151B (1988) 108
– Neutron diffraction by perfect crystals excited into mechanical resonance vibrations - Michalec et al. 151B (1988) 113
– Neutron diffraction by vibrating crystals - Kulda et al. 151B (1988) 122
– Perfect crystal neutron optics - Eichhorn 151B (1988) 140
Delayed choice
– Polarized neutron interferometry: a survey - Badurek et al. 151B (1988) 82
– A possible experimental verification of retroactivity - Rietdijk 151B (1988) 358
Deterministic absorption
– Stochastic and deterministic attenuation of one beam in the neutron interferometer - Summhammer et al. 151B (1988) 103
Diffraction grating
– Neutron resonators and interferometers for very low energy neutrons - Steyerl et al. 151B (1988) 36
– Diffraction-grating neutron interferometers - Ioffe 151B (1988) 50
Diffraction of atoms
– — from a standing light wave - Martin et al. 151B (1988) 255
Dipole–dipole interactions (see $NaNO_2$) 151B (1988) 483
Dispersion theory
– Schrödinger equation for neutron optics - Sears 151B (1988) 156
Double resonance
– Zeeman energy, interference and neutron spin echo: a minimal theory - Mezei 151B (1988) 74
– Polarized neutron interferometry: a survey - Badurek et al. 151B (1988) 82
– New theoretical implications of neutron interferometric — experiments - Vigier 151B (1988) 386
Dynamical diffraction
– Neutron interference induced by gravity: new results and interpretations - Werner et al. 151B (1988) 22

– Neutron optical experiments at the IBR-2 pulsed reactor - Alexandrov et al. 151B (1988) 108
– Neutron diffraction by perfect crystals excited into mechanical resonance vibrations - Michalec et al. 151B (1988) 113
– Neutron diffraction by vibrating crystals - Kulda et al. 151B (1988) 122
– Perfect crystal neutron optics - Eichhorn 151B (1988) 140
– Neutron spin–pendellösung resonance - Horne et al. 151B (1988) 189

Earth's rotation effect
– Neutron interference induced by gravity: new results and interpretations - Werner et al. 151B (1988) 22
– Diffraction-grating neutron interferometers - Ioffe 151B (1988) 50

Edge diffraction
– Test of the time dependent Schrödinger equation with very slow neutrons - Felber et al. 151B (1988) 135
– Numerical solution of a nonlinear Schrödinger equation for neutron optics experiments - Kamesberger and Zeilinger 151B (1988) 193

Electron diffraction
– Some remarks on the quantum mechanics of the electron - Möllenstedt 151B (1988) 201
– Electron holography of atomic structures – prospect and limitations - Lichte 151B (1988) 214

Electron holography
– — of atomic structures – prospect and limitations - Lichte 151B (1988) 214
– Electron interferometry and holography of electrostatic fields: fundamental and applicative aspects - Matteucci et al. 151B (1988) 223
– Electron interference and holography at SIOM: basic considerations and experimental results - Chen et al. 151B (1988) 235

Electron interferometry
– — and holography of electrostatic fields: fundamental and applicative aspects - Matteucci et al. 151B (1988) 223
– Electron interference and holography at SIOM: basic considerations and experimental results - Chen et al. 151B (1988) 235

Electron oscillations
– Effect of geometry on the collective — in the X-ray absorption spectra of various metal compounds - Agarwal and Harsh 151B (1988) 509

ENDOR frequencies
– Evaluation of anisotropic non-coincident g^2, A^2, D, P and g_n^2 tensors from EPR and ENDOR data by the method of least-squares fitting. II. Use of second-order perturbed eigenvalues - Misra 151B (1988) 433

EPR correlations
– Bell-type inequalities á la Schrödinger - Kraus 151B (1988) 319

EPR experiment
– A possible experimental verification of retroactivity - Rietdijk 151B (1988) 358

EPR frequencies
– Evaluation of anisotropic non-coincident g^2, A^2, D, P and g_n^2 tensors from EPR and ENDOR data by the method of least-squares fitting. II. Use of second-order perturbed eigenvalues - Misra 151B (1988) 433

ESR measurements (see $YBa_2Cu_3O_{7-\delta}$) 151B (1988) 513

$FeCl_2$ metamagnet
– Theory of $FeCl_2$ metamagnet. I. Spin model with four-ion anisotropy - Onyszkiewicz and Wierzbicki 151B (1988) 462

– Theory of $FeCl_2$ metamagnet. II. Spin model with three-ion anisotropy - Onyszkiewicz and Wierzbicki 151B (1988) 475
Fermion interferometry
– Interferometry with correlated fermions - Yurke 151B (1988) 286
– Quantum interference effects on fermion clustering in a fermion interferometer - Silverman 151B (1988) 291
Ferroelectric–modulated phase transition
– Dipole–dipole interactions and the ferroelectric–modulated and modulated–paraelectric phase transitions of $NaNO_2$ - Massidda 151B (1988) 483
Fizeau effect
– Recent advances in X-ray and neutron interferometry - Bonse 151B (1988) 7
– — for neutrons passing through matter at a nuclear resonance - Arif et al. 151B (1988) 63
– Novel measuring methods in neutron interferometry - Tuppinger et al. 151B (1988) 96
– Schrödinger equation for neutron optics - Sears 151B (1988) 156
Flux quantization
– New results on the Aharonov–Bohm effect with electron interferometry - Tonomura 151B (1988) 206

GaAs (see *Two-dimensional electron gas*) 151B (1988) 494
Grating interferometer
– Diffraction-grating neutron interferometers - Ioffe 151B (1988) 50
– Ultra-high sensitivity accelerometers and gyroscopes using neutral atom matter-wave interferometry - Clauser 151B (1988) 262
Gravity effect
– Recent advances in X-ray and neutron interferometry - Bonse 151B (1988) 7
– Neutron interference induced by gravity: new results and interpretations - Werner et al. 151B (1988) 22
– Ultra-high sensitivity accelerometers and gyroscopes using neutral atom matter-wave interferometry - Clauser 151B (1988) 262
Green function
– A convenient expression of the — in LL neutron interferometry - Guigay 151B (1988) 176
Gyroscope
– Ultra-high sensitivity accelerometers and gyroscopes using neutral atom matter-wave interferometry - Clauser 151B (1988) 262

Hanbury-Brown–Twiss experiment
– Laser experiments with single atoms and the test of basic physics - Diedrich et al. 151B (1988) 247
– Quantum interference effects on fermion clustering in a fermion interferometer - Silverman 151B (1988) 291
Heavy fermions
– Anti-ferromagnetic correlations in UPt_3 - Frings et al. 151B (1988) 499
History
– Early neutron optics in Munich and in Grenoble - Maier-Leibnitz 151B (1988) 3
– Bell-type inequalities á la Schrödinger - Kraus 151B (1988) 319
– Schrödinger's discovery of coherent states - Steiner 151B (1988) 323
– Probability in quantum mechanics according to E. Schrödinger - Zambrini 151B (1988) 327
– Introduction - Eder 151B (1988) 373
Hydrogen-bonded solids
– Kink dynamics in — - Gordon 151B (1988) 453

Inertial sensor
– Ultra-high sensitivity accelerometers and gyroscopes using neutral atom matter-wave interferometry - Clauser 151B (1988) 262
Information measurement
– Information measures in quantum mechanics - Walker 151B (1988) 332
InGaAs (see *Two-dimensional electron gas*) 151B (1988) 494
Inhomogeneous phase shift
– Novel measuring methods in neutron interferometry - Tuppinger et al. 151B (1988) 96
Intensity profiles
– Recent advances in X-ray and neutron interferometry - Bonse 151B (1988) 7
– A convenient expression of the Green function in LL neutron interferometry - Guigay 151B (1988) 176
Interferometer types
– Recent advances in X-ray and neutron interferometry - Bonse 151B (1988) 7
– Neutron interferometry in India - Rakhecha et al. 151B (1988) 57
– Fizeau effect for neutrons passing through matter at a nuclear resonance - Arif et al. 151B (1988) 63
Interpretation of quantum mechanics
– Quantum physics and language - Lévy-Leblond 151B (1988) 314
– Information measures in quantum mechanics - Walker 151B (1988) 332
– The non-ergodic — and neutron interferometry - Buonomano 151B (1988) 349
– A wave system theoy of quantum mechanics - Andrews 151B (1988) 351
– Are two-beam Dirac interferences mass-independent? - Koh and Sasaki 151B (1988) 362
– Introduction - Eder 151B (1988) 373
– A quantum credo - Lévy-Leblond 151B (1988) 378
Irreversibility
– Structures in quantum cellular automata - Grössing and Zeilinger 151B (1988) 366

Kink dynamics (see *Hydrogen-bonded solids*) 151B (1988) 453

Language of quantum mechanics
– Quantum physics and language - Lévy-Leblond 151B (1988) 314
Larmor precession
– Zeeman energy, interference and neutron spin echo: a minimal theory - Mezei 151B (1988) 74
– Polarized neutron interferometry: a survey - Badurek et al. 151B (1988) 82
– Measurement of the Berry phase with polarized neutrons - Dubbers 151B (1988) 93
– Neutron spin–pendellösung resonance - Horne et al. 151B (1988) 189
Laser cooling
– Laser experiments with single atoms and the test of basic physics - Diedrich et al. 151B (1988) 247
– Ultra-high sensitivity accelerometers and gyroscopes using neutral atom matter-wave interferometry - Clauser 151B (1988) 262
LLL interferometers
– Recent advances in X-ray and neutron interferometry - Bonse 151B (1988) 7
– Neutron interferometry in India - Rakhecha et al. 151B (1988) 57
– Novel measuring methods in neutron interferometry - Tuppinger et al. 151B (1988) 96
– Neutron optical experiments at the IBR-2 pulsed reactor - Alexandrov et al. 151B (1988) 108
– On coherence in crystal optics - Petrascheck 151B (1988) 171

Magnetic properties (see *$FeCl_2$ metamagnet*) 151B (1988) 462
Magnetic properties (see *$FeCl_2$ metamagnet*) 151B (1988) 475
Many-world theory
– Quantum physics and language - Lévy-Leblond 151B (1988) 314
Maser
– Laser experiments with single atoms and the test of basic physics - Diedrich et al. 151B (1988) 247
Measurement theory
– Neutron interference and quantum measurement problems - Namiki 151B (1988) 281
– The dynamic generation of Schrödinger cats and their detection - Yurke and Stoler 151B (1988) 298
– Does measurement reverse the direction of intrinsic time? - Bialynicki-Birula 151B (1988) 302
– Interference and distinguishability in quantum mechanics - Uffink and Hilgevoord 151B (1988) 309
– Information measures in quantum mechanics - Walker 151B (1988) 332
– Testing Schrödinger's paradox with a Michelson interferometer - Walker et al. 151B (1988) 339
– A quantum credo - Lévy-Leblond 151B (1988) 378
– Some epistemological aspects of the quantum measurement problem - Namiki 151B (1988) 381
Metamagnet, $FeCl_2$
– Theory of $FeCl_2$ metamagnet. I. Spin model with four-ion anisotropy - Onyszkiewicz and Wierzbicki 151B (1988) 462
– Theory of $FeCl_2$ metamagnet. II. Spin model with three-ion anisotropy - Onyszkiewicz and Wierzbicki 151B (1988) 475
Multiple wavelength interferometry
– Recent advances in X-ray and neutron interferometry - Bonse 151B (1988) 7
Multislit system
– A neutron optical imaging system for the determination of an upper limit of the neutron charge - Baumann et al. 151B (1988) 130

$NaNO_2$
– Dipole–dipole interactions and the ferroelectric–modulated and mod - ulated–paraelectric phase transitions of — - Massidda 151B (1988) 483
Neutron chopper
– Neutron diffraction by perfect crystals excited into mechanical resonance vibrations - Michalec et al. 151B (1988) 113
Neutron electric charge
– Neutron resonators and interferometers for very low energy neutrons - Steyerl et al. 151B (1988) 36
– Diffraction-grating neutron interferometers - Ioffe 151B (1988) 50
– A neutron optical imaging system for the determination of an upper limit of the neutron charge - Baumann et al. 151B (1988) 130
Neutron electric dipole moment
– Neutron resonators and interferometers for very low energy neutrons - Steyerl et al. 151B (1988) 36
Neutron focusing
– Recent advances in X-ray and neutron interferometry - Bonse 151B (1988) 7
– A neutron optical imaging system for the determination of an upper limit of the neutron charge - Baumann et al. 151B (1988) 130
– Test of the time dependent Schrödinger equation with very slow neutrons - Felber et al. 151B (1988) 135

– — effects in perfect-crystal systems - Zeilinger and Horne 151B (1988) 147
– A convenient expression of the Green function in LL neutron interferometry - Guigay 151B (1988) 176
– Neutron spin–pendellösung resonance - Horne et al. 151B (1988) 189
Neutron scattering, inelastic
– Anti-ferromagnetic correlations in UPt_3 - Frings et al. 151B (1988) 499
Nondispersive arrangement
– Novel measuring methods in neutron interferometry - Tuppinger et al. 151B (1988) 96
– On coherence in crystal optics - Petrascheck 151B (1988) 171
– An electron optical Sagnac experiment - Hasselbach and Nicklaus 151B (1988) 230
Nonlinear quantum mechanics
– Schrödinger inviolate: neutron optical searches for violations of quantum mechanics - Klein 151B (1988) 44
– Numerical solution of a nonlinear Schrödinger equation for neutron optics experiments - Kamesberger and Zeilinger 151B (1988) 193
Nonlocality
– A new non-local effect in quantum mechanics - Greenberger 151B (1988) 374

1D disordered systems
– Voltage-dependent scaling of the quantum resistance in — - Lenstra and Smokers 151B (1988) 503
Paraelectric–modulated phase transition
– Dipole–dipole interactions and the ferroelectric–modulated and modulated–paraelectric phase transitions of $NaNO_2$ - Massidda 151B (1988) 483
Particle trajectory
– The quantum potential approach to neutron interferometry experiments - Dewdney 151B (1988) 160
– Observations and events - Mackinnon 151B (1988) 355
Path integral
– Path integrals in multiply connected spaces and the Aharonov–Bohm interference - Liang 151B (1988) 239
Pendellösung effects
– Perfect crystal neutron optics - Eichhorn 151B (1988) 140
– A convenient expression of the Green function in LL neutron interferometry - Guigay 151B (1988) 176
– Neutron spin–pendellösung resonance - Horne et al. 151B (1988) 189
Phase transitions (see *$NaNO_2$*) 151B (1988) 483
Phonon scattering
– Cyclotron resonance linewidth in a two-dimensional electron gas due to — - Basu et al. 151B (1988) 494
Plasmon shift (see *X-ray absorption spectra of metal compounds*) 151B (1988) 509
Polarized neutron interferometry
– Zeeman energy, interference and neutron spin echo: a minimal theory - Mezei 151B (1988) 74
– Polarized neutron interferometry: a survey - Badurek et al. 151B (1988) 82
– Measurement of the Berry phase with polarized neutrons - Dubbers 151B (1988) 93
Proton transport (see *Hydrogen-bonded solids*) 151B (1988) 453
Pulsed reactor
– Neutron optical experiments at the IBR-2 — - Alexandrov et al. 151B (1988) 108

Quantization principle
– The Schrödinger equation as the main — - Entralgo and Kuryshkin 151B (1988) 306
Quantum devices
– Quantum effects in semiconductor components - Dorda 151B (1988) 273
Quantum distribution
– The Schrödinger equation as the main quantization principle - Entralgo and Kuryshkin 151B (1988) 306
– Interference and distinguishability in quantum mechanics - Uffink and Hilgevoord 151B (1988) 309
– Probability in quantum mechanics according to E. Schrödinger - Zambrini 151B (1988) 327
Quantum Hall effect
– Quantum effects in semiconductor components - Dorda 151B (1988) 273
Quantum mechanics
– Schrödinger inviolate: neutron optical searches for violations of — - Klein 151B (1988) 44
– Stochastic and deterministic attenuation of one beam in the neutron interferometer - Summhammer et al. 151B (1988) 103
– Test of the time dependent Schrödinger equation with very slow neutrons - Felber et al. 151B (1988) 135
– Schrödinger equation for neutron optics - Sears 151B (1988) 156
– The quantum potential approach to neutron interferometry experiments - Dewdney 151B (1988) 160
– Neutron interference and quantum measurement problems - Namiki 151B (1988) 281
– The dynamic generation of Schrödinger cats and their detection - Yurke and Stoler 151B (1988) 298
Quantum noise
– Polarized neutron interferometry: a survey - Badurek et al. 151B (1988) 82
– Electron holography of atomic structures – prospect and limitations - Lichte 151B (1988) 214
Quantum potential
– The — approach to neutron interferometry experiments - Dewdney 151B (1988) 160
– Observations and events - Mackinnon 151B (1988) 355
– Introduction - Eder 151B (1988) 373
– New theoretical implications of neutron interferometric double resonance experiments - Vigier 151B (1988) 386
Quantum resistance (see *1D disordered systems*) 151B (1988) 503
Quantum well
– Quantum effects in semiconductor components - Dorda 151B (1988) 273
Quaternion quantum mechanics
– Schrödinger inviolate: neutron optical searches for violations of quantum mechanics - Klein 151B (1988) 44

Radio-frequency trap
– Laser experiments with single atoms and the test of basic physics - Diedrich et al. 151B (1988) 247
Relativistic particles
– Does measurement reverse the direction of intrinsic time? - Bialynicki-Birula 151B (1988) 302
Resonator
– Neutron resonators and interferometers for very low energy neutrons - Steyerl et al. 151B (1988) 36
– On coherence in crystal optics - Petrascheck 151B (1988) 171

Rydberg atom
– Laser experiments with single atoms and the test of basic physics - Diedrich et al. 151B (1988) 247

Sagnac effect
– Neutron interference induced by gravity: new results and interpretations - Werner et al. 151B (1988) 22
– Diffraction-grating neutron interferometers - Ioffe 151B (1988) 50
– An electron optical Sagnac experiment - Hasselbach and Nicklaus 151B (1988) 230
– Ultra-high sensitivity accelerometers and gyroscopes using neutral atom matter-wave interferometry - Clauser 151B (1988) 262
Scattering lengths
– Recent advances in X-ray and neutron interferometry - Bonse 151B (1988) 7
– Novel measuring methods in neutron interferometry - Tuppinger et al. 151B (1988) 96
– Stochastic and deterministic attenuation of one beam in the neutron interferometer - Summhammer et al. 151B (1988) 103
Schrödinger's paradox
– The dynamic generation of Schrödinger cats and their detection - Yurke and Stoler 151B (1988) 298
– Testing — with a Michelson interferometer - Walker et al. 151B (1988) 339
Semiconductor heterostructure
– Quantum effects in semiconductor components - Dorda 151B (1988) 273
Separated crystal interferometers
– Recent advances in X-ray and neutron interferometry - Bonse 151B (1988) 7
Slit diffraction
– A neutron optical imaging system for the determination of an upper limit of the neutron charge - Baumann et al. 151B (1988) 130
Small angle scattering
– Novel measuring methods in neutron interferometry - Tuppinger et al. 151B (1988) 96
– Perfect crystal neutron optics - Eichhorn 151B (1988) 140
Spin-coupled systems
– Evaluation of anisotropic non-coincident g^2, A^2, D, P and g_n^2 tensors from EPR and ENDOR data by the method of least-squares fitting. II. Use of second-order perturbed eigenvalues - Misra 151B (1988) 433
Spin-echo systems
– Zeeman energy, interference and neutron spin echo: a minimal theory - Mezei 151B (1988) 74
Spin model with four-ion anisotropy (see *$FeCl_2$ metamagnet*) 151B (1988) 462
Spin model with three-ion anisotropy (see *$FeCl_2$ metamagnet*) 151B (1988) 475
Spin–orbit interaction
– Neutron interferometry investigation of the Aharonov–Casher effect - Kaiser et al. 151B (1988) 68
– Neutron spin–pendellösung resonance - Horne et al. 151B (1988) 189
Spin superposition
– Zeeman energy, interference and neutron spin echo: a minimal theory - Mezei 151B (1988) 74
– Polarized neutron interferometry: a survey - Badurek et al. 151B (1988) 82
– The quantum potential approach to neutron interferometry experiments - Dewdney 151B (1988) 160
– Quantum interference effects on fermion clustering in a fermion interferometer - Silverman 151B (1988) 291

– The dynamic generation of Schrödinger cats and their detection - Yurke and Stoler 151B (1988) 298
– Interference and distinguishability in quantum mechanics - Uffink and Hilgevoord 151B (1988) 309
– Some epistemological aspects of the quantum measurement problem - Namiki 151B (1988) 381
– New theoretical implications of neutron interferometric double resonance experiments - Vigier 151B (1988) 386
Spinor symmetry
– Polarized neutron interferometry: a survey - Badurek et al. 151B (1988) 82
Squeezed states
– Laser experiments with single atoms and the test of basic physics - Diedrich et al. 151B (1988) 247
– Interferometry with correlated fermions - Yurke 151B (1988) 286
– Schrödinger's discovery of coherent states - Steiner 151B (1988) 323
Standing light wave
– Diffraction of atoms from a — - Martin et al. 151B (1988) 255
Stern–Gerlach splitting
– Zeeman energy, interference and neutron spin echo: a minimal theory - Mezei 151B (1988) 74
– Polarized neutron interferometry: a survey - Badurek et al. 151B (1988) 82
– Two- and three-dimensional tunneling of neutral spin 1/2 particles through magnetic fields - Barut and Božić 151B (1988) 180
Stochastic absorption
– Stochastic and deterministic attenuation of one beam in the neutron interferometer - Summhammer et al. 151B (1988) 103
Superconductivity (see $YBa_2Cu_3O_{7-\delta}$) 151B (1988) 513

3d metals (see *Alloys, binary*) 151B (1988) 401
Time-dependent Schrödinger equation
– Test of the time dependent Schrödinger equation with very slow neutrons - Felber et al. 151B (1988) 135
Time reversal
– Does measurement reverse the direction of intrinsic time? - Bialynicki-Birula 151B (1988) 302
– A possible experimental verification of retroactivity - Rietdijk 151B (1988) 358
Topological phase
– Measurement of the Berry phase with polarized neutrons - Dubbers 151B (1988) 93
– Path integrals in multiply connected spaces and the Aharonov–Bohm interference - Liang 151B (1988) 239
Tunneling
– Two- and three-dimensional — of neutral spin 1/2 particles through magnetic fields - Barut and Božić 151B (1988) 180
Two-dimensional electron gas
– Cyclotron resonance linewidth in a — due to phonon scattering - Basu et al. 151B (1988) 494
Two-slit interference
– Schrödinger inviolate: neutron optical searches for violations of quantum mechanics - Klein 151B (1988) 44
– A neutron optical imaging system for the determination of an upper limit of the neutron charge - Baumann et al. 151B (1988) 130
– Test of the time dependent Schrödinger equation with very slow neutrons - Felber et al. 151B (1988) 135
– Some remarks on the quantum mechanics of the electron - Möllenstedt 151B (1988) 201

– Ultra-high sensitivity accelerometers and gyroscopes using neutral atom matter-wave interferometry - Clauser 151B (1988) 262
– The non-ergodic interpretation of quantum mechanics and neutron interferometry - Buonomano 151B (1988) 349
– A wave system theoy of quantum mechanics - Andrews 151B (1988) 351
– A possible experimental verification of retroactivity - Rietdijk 151B (1988) 358

Ultracold and very cold neutrons
– Early neutron optics in Munich and in Grenoble - Maier-Leibnitz 151B (1988) 3
– Neutron resonators and interferometers for very low energy neutrons - Steyerl et al. 151B (1988) 36
– Diffraction-grating neutron interferometers - Ioffe 151B (1988) 50
– A neutron optical imaging system for the determination of an upper limit of the neutron charge - Baumann et al. 151B (1988) 130
– Test of the time dependent Schrödinger equation with very slow neutrons - Felber et al. 151B (1988) 135

Uncertainty relation
– Polarized neutron interferometry: a survey - Badurek et al. 151B (1988) 82
– Interferometry with correlated fermions - Yurke 151B (1988) 286
– Quantum interference effects on fermion clustering in a fermion interferometer - Silverman 151B (1988) 291
– Interference and distinguishability in quantum mechanics - Uffink and Hilgevoord 151B (1988) 309

UPt_3
– Anti-ferromagnetic correlations in — - Frings et al. 151B (1988) 499

Vibrating crystals
– Neutron diffraction by perfect crystals excited into mechanical resonance vibrations - Michalec et al. 151B (1988) 113
– Neutron diffraction by — - Kulda et al. 151B (1988) 122

Vibration
– Neutron interferometry in India - Rakhecha et al. 151B (1988) 57
– Fizeau effect for neutrons passing through matter at a nuclear resonance - Arif et al. 151B (1988) 63
– Neutron optical experiments at the IBR-2 pulsed reactor - Alexandrov et al. 151B (1988) 108
– Neutron diffraction by perfect crystals excited into mechanical resonance vibrations - Michalec et al. 151B (1988) 113

Voltage-dependent scaling
– — of the quantum resistance in 1D disordered systems - Lenstra and Smokers 151B (1988) 503

Wave packet reduction
– Neutron interference and quantum measurement problems - Namiki 151B (1988) 281

X-ray absorption spectra of metal compounds
– Effect of geometry on the collective electron oscillations in the X-ray absorption spectra of various metal compounds - Agarwal and Harsh 151B (1988) 509

X-ray interferometry
– Recent advances in X-ray and neutron interferometry - Bonse 151B (1988) 7

$YBa_2Cu_3O_{7-\delta}$
– Evidence for Cu^{3+} in — from ESR measurements: a reassessment - Sastry 151B (1988) 513

Zeeman energy
– Zeeman energy, interference and neutron spin echo: a minimal theory - Mezei 151B (1988) 74
– Polarized neutron interferometry: a survey - Badurek et al. 151B (1988) 82
– Neutron focusing effects in perfect-crystal systems - Zeilinger and Horne 151B (1988) 147
– Two- and three-dimensional tunneling of neutral spin 1/2 particles through magnetic fields - Barut and Božić 151B (1988) 180
– Neutron interference and quantum measurement problems - Namiki 151B (1988) 281

PHYSICA C

Aluminium (see *Beta particles*) 151C (1988) 547
Attenuation coefficients (see *Beta particles*) 151C (1988) 547

Beta particles
– Mass attenuation coefficients on — in 4π geometry - Nathuram et al. 151C (1988) 547
Bubbles, axi-symmetrical
– Axi-symmetrical bubbles - Linhart and Mezzetti 151C (1988) 539

Discharge current (see *Glow discharge, gaseous*) 151C (1988) 527

Electron acoustic plasma, relativistic
– On the effect of Landau damping in a relativistic electron acoustic plasma - Roy Chowdhury et al. 151C (1988) 518

Films (see *Bubbles, axi-symmetrical*) 151C (1988) 539

Glow discharge, gaseous
– Effects of localised transverse magnetic field on the characteristics of a glow discharge - Shirodkar et al. 151C (1988) 527

Ionization potential
– Spectral structure of trebly ionized thorium, Th IV - Klinkenberg 151C (1988) 552

Landau damping
– On the effect of — in a relativistic electron acoustic plasma - Roy Chowdhury et al. 151C (1988) 518
Magnetic field effects (see *Glow discharge, gaseous*) 151C (1988) 527

Solitary wave (see *Electron acoustic plasma, relativistic*) 151C (1988) 518
Stark shift (see *Th III spectrum*) 151C (1988) 552
Stark shift (see *Th IV spectrum*) 151C (1988) 552

Th III spectrum
– Spectral structure of trebly ionized thorium, Th IV - Klinkenberg 151C (1988) 552
Th IV spectrum
– Spectral structure of trebly ionized thorium, Th IV - Klinkenberg 151C (1988) 552

Zeeman pattern
– Spectral structure of trebly ionized thorium, Th IV - Klinkenberg 151C (1988) 552